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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/675,468	09/28/2000	John Bryan Ibbotson	GB919990081US1/1751P	8913

7590 12/31/2003

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EXAMINER
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PILLAI, NAMITHA

ART UNIT	PAPER NUMBER
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2173

DATE MAILED: 12/31/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

09/675,468

Applicant(s)

IBBOTSON ET AL.

Examiner

Namitha Pillai

Art Unit

2173

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 25 November 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-9 and 11-20 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-9 and 11-20 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. §§ 119 and 120

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\* See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.  
a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413) Paper No(s) \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

Art Unit: 2173

## DETAILED ACTION

### *Claim Rejections - 35 USC § 102*

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

1. Claims 1, 4-6, 9 and 11-15 are rejected under 35 U.S.C. 102(e) as being clearly anticipated by U. S. Patent No. 6, 243, 858 B1 (Mizoguchi et al.), herein referred to as Mizoguchi.

Referring to claims 1 and 18-20, Mizoguchi discloses a tool for graphically defining an expression with a graphic user interface (GUI) component with means for responding to user input for generating a graphic definition of the expression by defining plurality of tree structures (Figures 6 and 11), wherein as seen by Figure 11, the tree structures represent a distinct nodes under which are represented items which are defined by the user (reference numbers S52 and S53, Figure 10). As also seen by the structures of Figure 11, wherein “input data 1” comprise a hierarchical series of nodes the nodes being represented under “input data 1” and “output data 1”, thereby showing a hierarchical relationship. These tree structures also contain a plurality of times listed with the list item being associated with the respective nodes of the associated tree, wherein the nodes and the items both represented as the same data, thereby showing an association are disclosed as being associated with the respective input or output trees. Figure 11 of Mizoguchi also clearly discloses an input data structure and at least one other tree structure

representing an output data structure wherein any associated list item defines a formatting definition, used for the graphic expression. Mizoguchi discloses an expression generator component adapted to read the graphic definition of the expression provided by a user through the GUI component, with the expression generator analyzing the graphic definition and generating an expression based on the structure of each tree and any list items associated with respective nodes of a tree (Figure 23), wherein the grid representation which is the graphic definition is executed and the result of the execution is outputted, this involving analyzing and generating of an expression from the graphic representation..

Referring to claim 4, Mizoguchi discloses the nodes comprise leaf and branch nodes, the branch nodes representing complex structured fields (Figure 14B) and the leaf nodes representing simple fields comprising strings (Figure 9B).

Referring to claim 5, Mizoguchi discloses each list item comprises an expression ("DATA RECORD PROCESSING" section, Figure 11).

Referring to claim 6, Mizoguchi discloses that the GUI component is adapted to allow a user to define a tree structure representing an input data structure wherein any associated list item defines a filtering constraint, wherein the constraint is processed by the data record processing section (Figure 11).

Referring to claim 9, Mizoguchi discloses allowing a user to graphically link two or more nodes, wherein "Record Item 1" and "Record Items 4-6" within the input tree structures generates a logical expression, wherein as seen from the input tree to the Data Record Processing section which holds the expressions, the nodes are limited to equality, wherein the values of these nodes are equal to each other and do not change (Figure 11).

Referring to claim 11, Mizoguchi discloses allowing a user to define an input tree structure, wherein based on the user's inputting, the input tree structure and the output tree structure are defined, each having the associated lists, with the list items for the output tree structure identifying a node of the input tree structure (Figure 11).

Referring to claim 12, Mizoguchi discloses displaying a list for an output tree to the left of the tree (Figure 11).

Referring to claim 13, Mizoguchi discloses is adapted to allow a user to define a list item with a free variable representing the associated tree structure node within the graphical definition, wherein the variable is "Record Items 1-8" in Figure 11.

Referring to claim 14, Mizoguchi discloses a node represented by a wildcard symbol, the wildcard symbol representing the node and all otherwise undefined substructures of the node, the node being "Record Item 9", which is not defined in the Processing Section, as seen in Figure 11.

Referring to claim 15, Mizoguchi discloses defining a structure comprising a branch node having a sub-structure comprising one or more defined nodes (Figure 14B) and a node represented by a wildcard symbol (Figure 11).

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 2, 3 and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mizoguchi and U. S. Patent No. 6, 434, 545 B1 (MacLeod et al), herein referred to as MacLeod.

Referring to claim 2, Mizoguchi does not explicitly disclose the expressions being configured for a database query. MacLeod discloses a system wherein database queries are created from graphically generating a query (Figures 4 and 5). It would have been obvious for one skilled in the art, at the time of the invention to learn from MacLeod to configure one of a plurality of nodes for database querying. Mizoguchi uses multiple tree structures in defining a graphic expression, wherein these graphic expressions would express various kinds of processes, wherein database queries would fall under these processes. MacLeod has clearly shown how such a database query expression is generated from a graphic definition. Hence, one skilled in the art, at the time of the invention would have been motivated to learn from MacLeod to configure one of a plurality of nodes for database querying.

Referring to claim 3, Mizoguchi and MacLeod disclose the expression is an SQL3 expression (MacLeod, column 1, lines 22-25).

Referring to claim 16, Mizoguchi does not disclose analyzing through a grammatical definition. MacLeod discloses that the analyzing means is cooperable with a grammatical definition of the graphic definition to generate the expression, wherein the graphic expression is used to generate the expression based on a grammatical definition (Figures 5 and 10). It would have been obvious for one skilled in the art, at the time of the invention to learn from MacLeod to have analyzing means that is cooperable with a grammatical definition of the graphic definition to generate the expression. Mizoguchi discloses taking a graphical definition to generate an expression and analyses of this graphic definition to determine the execution process. It is inherent that a grammatical definition, included, as instructions would be used to carry out the actions of the process created by the grammatical definition. Furthermore, one skilled in the

art, at the time of the invention would have been motivated to learn from MacLeod to clearly state that in fact grammatical definitions are used during the analysis step to go from the graphic definition to the generated expression.

3. Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Mizoguchi and U.S. Patent No. 5,555,367 (Premerlani et al.), herein referred to as Premierlani.

Referring to claim 7, Mizoguchi discloses that more than one tree structure does exist but does not disclose that these input structures would be linked based on the nodes within these structures. Premierlani discloses allowing users to define two tree structures, each having an associated list with at least one list item associated with a first node of a first input tree identifying a second node of a second input tree structure from which an expression joining the two input tree on the nodes are generated (column 1, lines 25-35). Premierlani discloses that the idea of joining two structures is common through querying and is implemented in query languages, as would be the case when an expression joining the two structures is generated. It would have been obvious for one skilled in the art, at the time of the invention to learn from Premierlani for means to join two of the data structures that are referred to in Mizoguchi. Mizoguchi clearly discloses the linking of input tree structures, wherein the input tree structures of the various modules represented in the graphic presentation and used for creating this graphic presentation must clearly be linked to each other in order for the proper input information and output information to enter and leave each individual modules. This implementation gives the system more flexibility, wherein users can link more than one structure and with Premierlani go further by using data within these structures providing greater depths for working with the data, wherein the specific data within these trees are used for more clearly showing the linking of the

Art Unit: 2173

data structures. Hence, one skilled in the art, at the time of the invention would have been motivated to learn from Premierlani for means for linking the nodes of more than tree structure.

4. Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over Mizoguchi and U. S. Patent No. 6,535,883 B1 (Lee et al.).

Referring to claim 8, Mizoguchi does not disclose input tree structures with two or more associated lists. Lee discloses as seen in Figure 15, the GUI component adapted to allow a user to define an input tree structure having two or more associated lists, at least one list item from each list comprising an expression from which said expression generator generates a logical OR expression. It would have been obvious for one skilled in the art, at the time of the invention to learn from Lee to use the association of the multiple links in an input tree structure with the items comprising expressions generating a logical OR expression. Mizoguchi would benefit from the use of multiple lists, wherein these lists would hold more information, which would be in depth within one tree structure. Hence, it would have been obvious for one skilled in the art, at the time of the invention to learn from Lee to disclose to use the association of the multiple links in an input tree structure with the items comprising expressions generating a logical OR expression.

5. Claim 17 is rejected under 35 U.S.C. 103(a) as being unpatentable over Mizoguchi and MacLeod and further in view of, U. S. Patent No. 6,476,833 B1 (Moshfeghi), herein referred to as Moshfeghi.

Referring to claim 17, Mizoguchi and MacLeod do disclose that the nodes comprise a filter (Mizoguchi, Figure 11) but do not disclose that it filters XML messages. Moshfeghi discloses the filtering of XML documents (column 3, line 43). It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Mizoguchi and



Art Unit: 2173

MacLeod's invention such that there were a means for filtering XML messages. XML's filtering process according to Moshfeghi is done to parse the content of messages to locate all the linking information for subsequent processing. Mizoguchi and MacLeod would need a means for processing the messages concerning the queries submitted by the user. Hence, one skilled in the art, at the time of the invention would be motivated to learn from Moshfeghi to disclose a means for filtering XML documents.

#### ***Response to Claim Changes***

6. The Examiner acknowledges the Applicant's amendment specifying claims 1 and 18-20. However all the claims are still rejected under 35 U.S.C. 102 and 35 U. S. C. 103 as being previously disclose and as being obvious in view of prior art and disclosures.

#### ***Response to Arguments***

7. Applicant's arguments filed on 11/25/03 have been fully considered, but are moot in view of the new ground(s) of rejection.

#### ***Conclusion***

8. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37

Art Unit: 2173

CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Responses to this action should be mailed to: Commissioner of Patents and Trademarks, Washington D.C. 20231. If applicant desires to fax a response, central FAX number (703) 872-9306 may be used. NOTE: A Request for Continuation (Rule 60 or 62) cannot be faxed. Please label "PROPOSED" or "DRAFT" for informal facsimile communications. For after final responses, please label "AFTER FINAL" or "EXPEDITED PROCEDURE" on the document. Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal Drive, Arlington, VA., Sixth Floor (Receptionist).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Namitha Pillai whose telephone number is (703) 305-7691. The examiner can normally be reached on 8:30 AM - 5:30 PM.

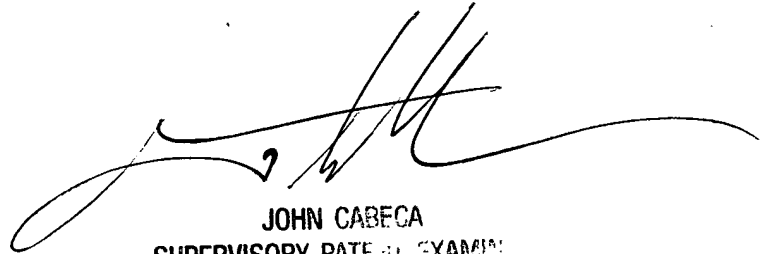
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Cabeca can be reached on (703) 308-3116.

All Internet e-mail communications will be made of record in the application file. PTO employees do not engage in Internet communications where there exists a possibility that sensitive information could be identified or exchanged unless the record includes a properly signed express waiver of the confidentiality requirements of 35 U.S.C. 122. This is more clearly set forth in the Interim Internet Usage Policy published in the Official Gazette of the Patent and Trademark on February 25, 1997 at 1195 OG 89.

Art Unit: 2173

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (703) 305-3800.

Namitha Pillai  
Assistant Examiner  
Art Unit 2173  
December 22, 2003

A handwritten signature in black ink, appearing to read 'John Cabeza', is written over a horizontal line. The signature is stylized with a large loop on the left and a long horizontal stroke extending to the right.

JOHN CABECA  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 2100